1 34556/JFO/B600

MEMORY STRUCTURE

ABSTRACT OF THE DISCLOSURE

Memory structure, and packet-based switch including the memory structure, having Address Resolution Table and Packet Data Buffer table employing a shared memory. Transmit Descriptor Table also may share memory. Address Resolution Table can be implemented with direct mapping, for which destination address key direct-mapped address search may be used. The memory structure and switch implement an IEEE Std. 802.3 communication protocol via multiple ports.

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